M-1
Satellite Bus

The Aegis adaptable design M-1 Spacecraft allows your payloads to define the mission with flexible structural configuration around a cost-confident, flight proven, performance driven satellite bus.

The M-1 bus is a flexible satellite system that can fly on human or non-human rated launches. It can be jettisoned from the ISS, or any ESPA capable deployment systems.

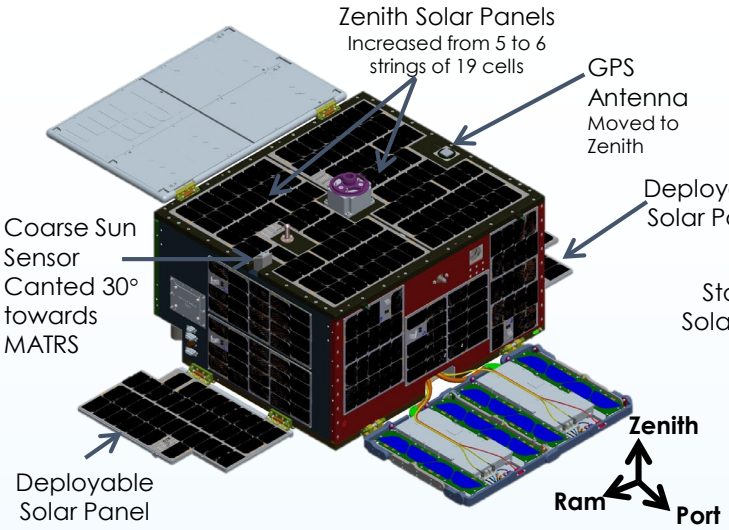
BENEFITS of Aegis M-1

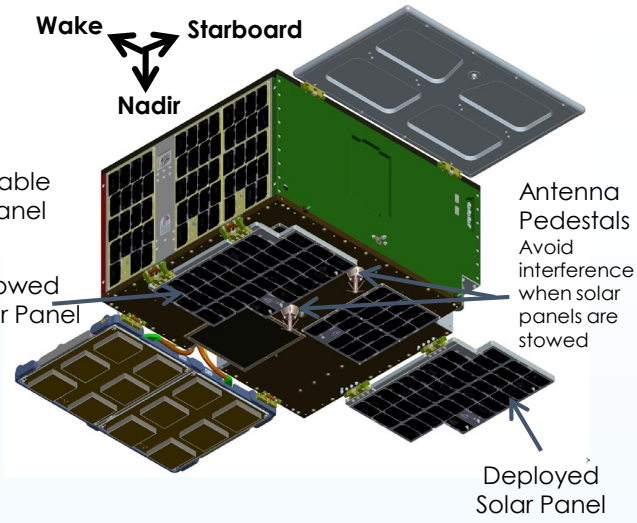
Options for Customization

- Propulsion systems for orbital Maintenance
- Sun tracking solar arrays
- Deployable Paneling
- Energy Storage Increase
- Increased Capacity
- Convertible structural interfaces
- X-band Downlink

Services to Payloads

- 28 +/- 6 VDC Power (switched for each payload
- RS422 C&DH Interface (includes time stamp)
- >1 Mbps downlink capability, shared resource
- 16 RTDs + Calibration circuit (placement determined by thermal analysis and experiment requirements
- Pulse per second signal for time synchronization
- Cradle-to-grave integration
- Payload integrators with successful track record for 25 years





Specifications and Dimensions

Class	ESPA, ISS-Cyclops, ISS-KABER, Aegis Trunk Deployer
Orbit Lifetime	1-6 years (LEO)
Available Payload Volume	42cm x 42 cm x 66 cm (negotiable) OR approximately 4,500 cubic inches
Mass	Total: 100-150 kg Payload: 35-85 kg
GN&C:	Pointing Accuracy: +/-0.014 deg (3-sigma) Jitter: 0.084 microradians/sec (3-sigma) Position Accuracy: <1.5m (3-sigma) Velocity Accuracy: <0.3m/s (3-sigma) Time Accuracy (with PPS): <100 nsec (3-sigma)
Power	Energy Storage: 230Wh Bus Peak Power: 280W (10 Amps @ 28V) per switch Orbit Average Payload Power: up to 100W, orbit dependent
Comms	S-band Download bandwidth: 1 Mbps Uplink bandwidth: 10 kbps Compatible with enterprise ground system at multiple global ground sites
Data	RS422 interface for up to 12 payloads Customizable analog, digital, and serial interfaces available on request Suite A Encryption

AEGIS AEROSPACE